

**MR-1 CHECK OFF LIST FOR NON-CATEGORICAL COMPANIES****SAINT MARY'S (Boulevard)****#26210045****1. Month of JULY 1, 2008 THRU JULY 31, 2008**

- |     |  |                                    |                                    |     |
|-----|--|------------------------------------|------------------------------------|-----|
| 2.  | Is Outlet # (8 digit) Correct?   | <input checked="" type="radio"/> Y | N                                  | N/A |
| 3.  | Is average Total flow-gal.day stated in space provided?                    | <input checked="" type="radio"/> Y | N                                  | N/A |
| 4.  | Is max. Total flow-gal day stated in space provided? <i>TP</i>             | <input checked="" type="radio"/> Y | N                                  | N/A |
| 5.  | Is method used to calculate water stated?                                  | <input checked="" type="radio"/> Y | N                                  | N/A |
| 6.  | Are number of working days stated?   | <input checked="" type="radio"/> Y | N                                  | N/A |
| 7.  | Are there any parameters which have exceeded PVSC Local Limits?            | Y                                  | <input checked="" type="radio"/> N | N/A |
| 8.  | Is proper compliance/non-compliance statement provided?                    | <input checked="" type="radio"/> Y | N                                  | N/A |
| 9.  | Have correct number of samples been submitted?                             | <input checked="" type="radio"/> Y | N                                  | N/A |
| 10. | Has PHC result been listed on MR-1 report?                                 | Y                                  | <input checked="" type="radio"/> N | N/A |
| 11. | Has sample number been reported in space provided?                         | <input checked="" type="radio"/> Y | N                                  | N/A |
| 12. | Have all regulated parameters been listed on MR-1?                         | <input checked="" type="radio"/> Y | N                                  | N/A |
| 13. | Has sample type been stated on MR-1?                                       | <input checked="" type="radio"/> Y | N                                  | N/A |
| 14. | Have all samples been taken during the reporting period?                   | <input checked="" type="radio"/> Y | N                                  | N/A |
| 15. | Has NJDEPE certified lab been used?  | <input checked="" type="radio"/> Y | N                                  | N/A |
| 16. | Have analytical results been submitted on copies of Laboratory stationery? | <input checked="" type="radio"/> Y | N                                  | N/A |
| 17. | Have results been written in space designated on MR-1?                     | <input checked="" type="radio"/> Y | N                                  | N/A |
| 18. | Is correct method used to preserve samples stated on MR-1?                 | <input checked="" type="radio"/> Y | N                                  | N/A |
| 19. | Has MR-1 been signed by authorized representative?                         | <input checked="" type="radio"/> Y | N                                  | N/A |
| 20. | Has information been submitted on proper MR-1 form?                        | <input checked="" type="radio"/> Y | N                                  | N/A |
| 21. | Remove Arsenic from report if sampling not required                        | <input checked="" type="radio"/> Y | N                                  | N/A |

AUG 2008  
2nd Input  
Industrial Dept.

## MR-1 CHECK OFF LIST FOR NON-CATEGORICAL COMPANIES

First Reviewer: comments on deficiencies

CompleteDate Reviewed 8/28/08 Date sent to user

Date due back Reviewer

J. S. S. S.

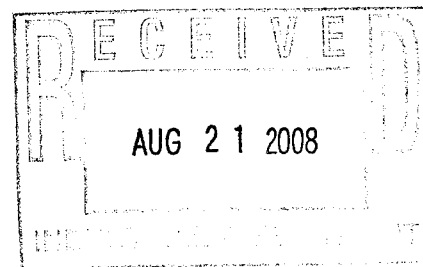
Second review comments on deficiencies

Date Reviewed Date sent to user

Date due back Reviewer

Date Reviewer






Certification of Non-use if applicable (use additional sheets): N/A

Compliance or non-compliance statement with compliance schedule (use additional sheets if necessary for every parameter used. PBI Regional Medical Center Hospital is in compliance with the PVSC local limits

Explain Method for preserving samples: Laboratory preserved with 5ml nitric acid to a pH of <2

I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

403.6(a)(2)(ii) revised by 53 FR 40610, October 17, 1988

  
\_\_\_\_\_  
Signature of Principal  
Executive or Authorized Agent

Joseph W. Pilewski

Vice President, Enviro-Sciences (OF DELAWARE), Inc  
Type Name and Title

19-Aug-08  
Date

Water Discharge Calculation Sheet

ST. MARY'S HOSPITAL (PBI)

JULY 2008

Total water used from meter reading (Cubic feet)	914,300
x 7.48 (gallons / cubic foot)	
Total Usage (Gallons)	6,838,964
Evaporation (Gallons) 5% evaporation *	341,948
Volume Discharged (Gallons)	6,497,016

Volume Discharged For Month	
Daily Average Discharge (Gallons)	209,581
Daily Maximum Discharge (Gallons)	230,539

Month 7  
Last day 31

\* NOTE: In the months of January, February and March the PVSC DOES NOT ALLOW a reduction for evaporation.

70027224	70027225	70029946	60144298			
<u>Meter 1</u>	<u>Meter 2</u>	<u>Meter 3</u>	<u>Meter 4</u>	<u>Total</u>	<u>x 100</u>	<u>x 7.48</u>
2,418	4,511	2,014	200	9,143	914,300	6,838,964

	<u>Reading Date</u>		<u>CF1</u>	<u>CF2</u>	<u>Consumption (100 cu.ft.)</u>
Meter 1	8/11/08		5,162.00	1,560.00	
	7/11/08		<u>3,844.00</u>	<u>1,549.00</u>	
		C - L	1,318.00	11.00	
			<u>x 1</u>	<u>x 100</u>	
			1,318.00	1,100.00	2,418.00
Meter 2	8/11/08		11,142.00	1,233.00	
	7/11/08		<u>9,731.00</u>	<u>1,202.00</u>	
		C - L	1,411.00	31.00	
			<u>x 1</u>	<u>x 100</u>	
			1,411.00	3,100.00	4,511.00
Meter 3	8/11/08		2,875.00	7,551.00	
	7/11/08		<u>1,791.00</u>	<u>7,458.00</u>	
		C - L	1,084.00	93.00	
			<u>x 1</u>	<u>x 10</u>	
			1,084.00	930.00	2,014.00
Meter 4	8/11/08		2,298.00		
	7/11/08		<u>2,278.00</u>		
		C - L	20.00		
			<u>x 10</u>		
			200.00		200.00



**ANALYTICAL DATA REPORT**

ESI, INC.  
111 Howard Blvd  
Suite 108  
Mount Arlington, NJ 07856

Project Name: **ST. MARY'S HOSPITAL (PBI)-R8MM**  
IAL Case Number: **E08-07622**

These data have been reviewed and accepted by:

A handwritten signature in black ink, appearing to read "Michael H. Leftin". The signature is written in a cursive, flowing style.

Michael H. Leftin, Ph.D.  
Laboratory Director

273 Franklin Road  
Randolph, NJ 07869  
Phone: 973 361 4252  
Fax: 973 989 5288



IAL is a NELAC New Jersey Certified Lab (14751) and maintains certification in Connecticut (PH-0899), New York (11402), Rhode Island (00126), Pennsylvania (68-00773) and in the Department of Navy IR QA Program

## Sample Summary

*IAL Case No.***E08-07622***Client* ESI, INC.*Project* ST. MARY'S HOSPITAL (PBI)-R8MM*Received On* 7/ 3/2008@14:30

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Depth Top/Bottom</u>	<u>Sampling Time</u>	<u>Matrix</u>	<u># of Container</u>
07622-001	SMP-0708	n/a	7/ 2/2008@09:45	Aqueous	1

**INTEGRATED ANALYTICAL LABORATORIES, LLC.****TABLE OF CONTENTS**

	<u>Page</u>
Qualifiers	1
Conformance / NonConformance Summary	2
Laboratory Deliverables Check List	3
Metal NonConformance Summary	4
Summary Report	5
Analytical Results	
Metals	6
Methodology Summary *	
Quality Control	
Metals	7
Method Blank Results Summary	
Calibration Summary	
Spike Sample Results Summary	
Duplicate Sample Results Summary	
Sample Tracking	
Chains of Custody	18
Laboratory Chronicle	21

\* Methodology is included in the IAL Project Information Page



**INTEGRATED ANALYTICAL LABORATORIES, LLC.****MATRIX QUALIFIERS**

- A -** Indicates the sample is an Aqueous matrix.
- O -** Indicates the sample is an Oil matrix.
- S -** Indicates the sample is a Soil, Sludge or Sediment matrix.
- X -** Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

**DATA QUALIFIERS**

- B -** Indicates the analyte was found in the Blank and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.
- C -** Common Laboratory Contaminant.
- D -** The compound was reported from the Diluted analysis.
- D.F. -** Dilution Factor.
- E -** Estimated concentration, reported results are outside the calibrated range of the instrument.
- J -** Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.
- MDL -** Method Detection Limit.
- MI -** Indicates compound concentration could not be determined due to Matrix Interferences.
- NA -** Not Applicable.
- ND -** Indicates the compound was analyzed for but Not Detected at the MDL.

**REPORT QUALIFIERS**

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

- Q -** Qualifier

**INTEGRATED ANALYTICAL LABORATORIES, LLC.****CONFORMANCE / NONCONFORMANCE SUMMARY**

Integrated Analytical Laboratories, LLC. received one (1) aqueous sample(s) from ESI, INC.  
(Project: ST. MARY'S HOSPITAL (PBI)-R8MM) on July 3, 2008 for the analysis of:

(1) Metal - Zinc

A review of the QA/QC measures for the analysis of the sample(s) contained in this report  
has been performed by:

*R. Shachis*  
Reviewed by

07/10/08  
Date

## INTEGRATED ANALYTICAL LABORATORIES, LLC.

## LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E08-07622

	Check If Complete
1. Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	<u>✓</u>
2. Table of Contents.	<u>✓</u>
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.	<u>✓</u>
4. Summary Table cross-referencing Field ID's vs. Lab ID's.	<u>✓</u>
5. Document bound, paginated and legible.	<u>✓</u>
6. Chain of Custody.	<u>✓</u>
7. Methodology Summary.	<u>✓</u>
8. Laboratory Chronicle and Holding Time Check.	<u>✓</u>
9. Results submitted on a dry weight basis (if applicable).	<u>✓</u>
10. Method Detection Limits.	<u>✓</u>
11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	<u>✓</u>
12. NonConformance Summary.	<u>✓</u>

R Shadish  
QC Reviewed by

07/18/08  
Date

**INTEGRATED ANALYTICAL LABORATORIES  
CONFORMANCE/NONCONFORMANCE SUMMARY  
METAL ANALYSIS**

Lab Case Number: E08-07622

	<u>No</u>	<u>Yes</u>
1. Calibration Summary Meet Criteria.	<u>          </u>	<u>✓</u>
2. ICP Interference Check Sample Results Meets Criteria (if applicable)	<u>          </u>	<u>NA</u>
3. Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria	<u>          </u>	<u>✓</u>
4. Internal Standards Meet Criteria (if applicable)	<u>          </u>	<u>✓</u>
5. Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria	<u>          </u>	<u>✓</u>
6. Blank Contamination: If yes, list compounds and concentrations in each blank:	<u>✓</u>	<u>          </u>
<hr/>		
7. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those compounds and their recoveries which fall outside the acceptable range).	<u>          </u>	<u>✓</u>
8. Extraction Holding Time Met. If not, list number of days exceeded for each sample:	<u>          </u>	<u>✓</u>
<hr/>		
9. Analysis Holding Time Met. If not, list number of days exceeded for each sample:	<u>          </u>	<u>✓</u>

**Additional Comments:**

Sample(s) used for aqueous metals analyses contained varying levels of sediment. Precautions were taken to use an aqueous representative of the sample. However, our experience has demonstrated that samples of this nature are very difficult to duplicate because the metals numbers are basically tied into the level of sediment present in the original sample. Additionally, as the remainder of the sample is stored under acidic conditions, some of the metals may continue to leach out into the water making any reproduction of the original number impossible. The rough amount of sediment present in the samples is as follows:

07622-001: Trace

*H. Fakir-Jayaram*  
Inorganic Manager

July 16, 2008  
Date

0001

## INTEGRATED ANALYTICAL LABORATORIES, LLC.

## SUMMARY REPORT

Client: ESI, INC.

Project: ST. MARY'S HOSPITAL (PBI)-R8MM

Lab Case No.: E08-07622

Lab ID:	07622-001
Client ID:	SMP-0708
Matrix:	Aqueous
Sampled Date	7/2/08
PARAMETER(Units)	Conc Q MDL
Metals (Units)	(mg/L-ppm)
Zinc	0.088 0.008

0005

## INTEGRATED ANALYTICAL LABORATORIES, LLC.

Zinc

Client/Project: ESI/ST. MARY'S HOSPITAL (PBI)-R8MM

Batch #: 309

Date Received: 07/03/08 14:30

Method: 200.8

Lab ID	Client ID	Result	Q	DF	Matrix	MDL	% Moist	Date Analyzed
07622-001	SMP-0708	0.088		1	Aqueous-mg/L	0.008	100	07/10/08

0006

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****BLANK 1 RESULTS SUMMARY**

Batch (Page) #: 309  
 Associated Lab 07486, 07494, 07501, 07547, 07557, 07560, 07619, 07621, 07622, 07624  
 Case for Blank 1: 07483, 07492, 07497, 07498, 07499, 07552, 07591, 07850

Matrix: Aqueous

Unit: ppb (µg/L)

Method: 200.8/200.7

ANALYTE	SAMPLE MDL	REAGENT BLANK
Arsenic	2.00	ND
Cadmium	1.00	ND
Calcium	200	ND
Chromium	8.00	ND
Copper	8.00	ND
Iron	100	ND
Lead	2.00	ND
Magnesium	200	ND
Manganese	4.00	ND
Mercury	0.500	ND
Nickel	4.00	ND
Zinc	8.00	ND

Associated Sample for Blank 1:

07486-006; 07494-001; 07501-001; 07547-001  
 07557-001; 07560-001; 07619-002; 07621-001  
 07622-001; 07624-001; 07483-001; 07492-001~003  
 07497-002; 07498-002; 07499-001; 07552-001  
 07591-001; 07850-001

0007

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504

07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601

07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: Aqueous

Method: 200.8/200.7

Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	CCB	CCB
Arsenic	0.500	ND	ND	ND	ND	ND	ND
Cadmium	0.250	ND	ND	ND	ND	ND	ND
Calcium	100	ND	ND				
Chromium	2.00	ND	ND	ND	ND	ND	ND
Copper	2.00	ND	ND	ND	ND	ND	ND
Iron	50.0	ND	ND				
Lead	0.500	ND	ND	ND	ND	ND	ND
Magnesium	100	ND	ND				
Manganese	1.00	ND	ND	ND	ND	ND	ND
Mercury	0.250	ND	ND	ND			
Nickel	1.00	ND	ND	ND	ND	ND	ND
Zinc	2.00	ND	ND	ND	ND	ND	ND

0008



E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 0750407505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 0760107619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850Matrix: AqueousMethod: 200.8/200.7Concentration/Units: ppb (µg/L)

ANALYTE	INST. MDL	CCB	CCB	CCB	CCB		
Arsenic	0.500	ND	ND	ND	ND		
Cadmium	0.250	ND	ND	ND	ND		
Chromium	2.00	ND	ND	ND	ND		
Copper	2.00	ND	ND	ND	ND		
Lead	0.500	ND	ND	ND	ND		
Manganese	1.00	ND	ND	ND	ND		
Nickel	1.00	ND	ND	ND	ND		
Zinc	2.00	ND	ND	ND	ND		

0009

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****INITIAL & CONTINUING CALIBRATION VERIFICATION**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504

07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601

07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: Aqueous Method: 200.8/200.7 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	ICV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.500	20.0	20.0	100	20.2	101	20.1	101	19.3	96.5
Cadmium	0.250	10.0	9.81	98.1	9.87	98.7	9.82	98.2	9.67	96.7
Calcium	100	10000	9360	93.6	10900	109				
Chromium	2.00	20.0	18.7	93.5	18.5	92.5	18.2	91.0	18.8	94.0
Copper	2.00	50.0	48.0	96.0	47.6	95.2	47.0	94.0	45.4	90.8
Iron	50.0	10000	10100	101	10900	109				
Lead	0.500	10.0	9.68	96.8	9.74	97.4	9.75	97.5	9.40	94.0
Magnesium	100	10000	9480	94.8	9700	97.0				
Manganese	1.00	30.0	29.1	97.0	28.4	94.7	28.0	93.3	29.2	97.3
Mercury	0.250	5.00	4.65	93.0	4.75	95.0	5.03	101		
Nickel	1.00	80.0	75.4	94.3	73.9	92.4	72.1	90.1	76.1	95.1
Zinc	2.00	40.0	39.0	97.5	39.1	97.8	38.8	97.0	37.0	92.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

0010

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****INITIAL & CONTINUING CALIBRATION VERIFICATION**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504

07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601

07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: Aqueous Method: 200.8/200.7 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV		CCV		CCV		CCV	
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.500	20.0	19.7	98.5	20.0	100	19.9	99.5	20.0	100
Cadmium	0.250	10.0	10.1	101	10.00	100	9.95	99.5	10.0	100
Chromium	2.00	20.0	19.1	95.5	19.3	96.5	19.2	96.0	19.2	96.0
Copper	2.00	50.0	46.4	92.8	46.9	93.8	47.5	95.0	47.1	94.2
Lead	0.500	10.0	9.70	97.0	9.56	95.6	9.76	97.6	9.71	97.1
Manganese	1.00	30.0	29.9	99.7	30.2	101	30.0	100	29.8	99.3
Nickel	1.00	80.0	77.8	97.3	79.3	99.1	77.9	97.4	77.4	96.8
Zinc	2.00	40.0	38.1	95.3	38.8	97.0	38.3	95.8	38.1	95.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

0011

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

# **METALS QUALITY CONTROL** **INITIAL & CONTINUING CALIBRATION VERIFICATION**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504

07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601

07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: Aqueous Method: 200.8/200.7 Units: ppb (ug/L)

ANALYTE	INST. MDL	ICV & CCV TRUE	CCV		CCV					
			FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.500	20.0	19.9	99.5	19.8	99.0				
Cadmium	0.250	10.0	10.0	100	9.91	99.1				
Chromium	2.00	20.0	19.2	96.0	18.8	94.0				
Copper	2.00	50.0	45.9	91.8	45.9	91.8				
Lead	0.500	10.0	9.64	96.4	9.72	97.2				
Manganese	1.00	30.0	29.7	99.0	29.3	97.7				
Nickel	1.00	80.0	77.3	96.6	76.4	95.5				
Zinc	2.00	40.0	38.0	95.0	37.8	94.5				

(1) Control Limits: Mercury 80-120; Other Metals 90-110

0012

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****SPIKE SAMPLE RECOVERY**

Batch (Page) #: 309

Lab Case: 07486, 07494, 07501, 07547, 07557, 07560, 07619, 07621, 07622, 07624

07483, 07492, 07497, 07498, 07499, 07552, 07591, 07850

Matrix: AqueousConcentration/Units: ppb (µg/L)

ANALYTE	SSR1	SR1	%R1	SA1	SSR2	SR2	%R2	SA2	CONTROL LIMIT %R
Arsenic	396	ND	99.0	400	434	ND	109	400	75-125
Cadmium	386	ND	96.5	400	461	ND	115	400	75-125
Calcium					35600	27800	97.5	8000	75-125
Chromium	365	ND	91.3	400	407	ND	102	400	75-125
Copper	498	120	94.5	400	420	12.0	102	400	75-125
Iron					8350	ND	104	8000	75-125
Lead	393	7.02	96.5	400	429	ND	107	400	75-125
Magnesium					22700	13300	118	8000	75-125
Manganese	404	27.8	94.1	400	398	ND	99.5	400	75-125
Mercury	9.75	ND	97.5	10.0					75-125
Nickel	369	ND	92.3	400	402	ND	101	400	75-125
Zinc	482	103	94.8	400	450	18.5	108	400	75-125

SSR = Spike Sample Result

SA = Spike Added

NC = Non-calculable % R; Sample concentration &gt; 4 x Spike Concentration.

SR = Sample Result

%R = Percent Recovery

QC Sample 1 07624-001

QC Sample 1 for following samples:

07486-006; 07494-001; 07501-001; 07547-001

07557-001; 07560-001; 07619-002; 07621-001

07622-001; 07624-001

QC Sample 2 07483-001

QC Sample 2 for following samples:

07483-001; 07492-001-003; 07497-002; 07498-002

07499-001; 07552-001; 07591-001; 07850-001

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

### METALS QUALITY CONTROL DUPLICATE SAMPLE RECOVERY

Batch (Page) #: 309

Lab Case: 07486, 07494, 07501, 07547, 07557, 07560, 07619, 07621, 07622, 07624

07483, 07492, 07497, 07498, 07499, 07552, 07591, 07850

Matrix: AqueousConcentration/Units: ppb (µg/L)

ANALYTE	CONTROL LIMIT 1	S1	D1	RPD1	CONTROL LIMIT 2	S2	D2	RPD2
Arsenic	NA	ND	ND	NC	NA	ND	ND	NC
Cadmium	NA	ND	ND	NC	NA	ND	ND	NC
Calcium					20	27800	26500	4.79
Chromium	NA	ND	ND	NC	NA	ND	ND	NC
Copper	20	120	120	0	20	12.0	11.3	6.01
Iron					NA	ND	ND	NC
Lead	20	7.02	6.95	1.00	NA	ND	ND	NC
Magnesium					20	13300	13200	0.755
Manganese	20	27.8	27.9	0.359	NA	ND	ND	NC
Mercury	NA	ND	ND	NC				
Nickel	NA	ND	ND	NC	NA	ND	ND	NC
Zinc	20	103	99.0	3.96	20	18.5	18.0	2.74

S1 = Sample 1

D1 = Duplicate 1

NA = Not Applicable

NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 1 07624-001

QC Sample 1 for following samples:

07486-006; 07494-001; 07501-001; 07547-001

07557-001; 07560-001; 07619-002; 07621-001

07622-001; 07624-001

S2 = Sample 2

D2 = Duplicate 2

QC Sample 2 07483-001

QC Sample 2 for following samples:

07483-001; 07492-001-003; 07497-002; 07498-002

07499-001; 07552-001; 07591-001; 07850-001

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

# **METALS QUALITY CONTROL** **LABORATORY CONTROL SAMPLE**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504

07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601

07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: AqueousUnit: ppb (µg/L)

ANALYTE	BSW1			BSW2		
	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)
Arsenic	400	392	98.0	400	391	97.8
Cadmium	400	395	98.8	400	405	101
Calcium	8000	8090	101			
Chromium	400	368	92.0	400	354	88.5
Copper	400	385	96.3	400	380	95.0
Iron	8000	8660	108			
Lead	400	381	95.3	400	384	96.0
Magnesium	8000	7950	99.4			
Manganese	400	382	95.5	400	371	92.8
Mercury	10.0	9.70	97.0			
Nickel	400	375	93.8	400	366	91.5
Zinc	400	393	98.3	400	393	98.3

(1) Control Limits % Recovery = 85-115%

BSW1

07486-006; 07494-001; 07501-001; 07547-001

07557-001; 07560-001; 07619-002; 07621-001

07622-001; 07624-001; 07483-001; 07492-001~003

07497-002; 07498-002; 07499-001; 07552-001

07591-001; 07850-001

BSW2

07502-002~003; 07503-002; 07504-002; 07505-001

07526-001; 07568-001; 07598-002; 07599-002

07600-002; 07500-002; 07601-001; 07620-001

07623-001; 07625-001; 07686-001; 07695-001

E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

# **METALS QUALITY CONTROL** **SERIAL DILUTIONS & POST SPIKES 1**

Batch (Page) #: 309

Lab Case: 07486, 07494, 07501, 07547, 07557, 07560, 07619, 07621, 07622, 07624

Matrix: AqueousConcentration/Units: ppb (µg/L)

ANALYTE	SERIAL DILUTION		% Difference	POST SPIKE		% Recovery
	SR	SDR		SPR	SA	
Arsenic	ND			394	400	98.5
Cadmium	ND			383	400	95.8
Chromium	ND			362	400	90.5
Copper	120			501	400	95.3
Lead	7.02			395	400	97.0
Manganese	27.8			400	400	93.1
Nickel	ND			367	400	91.8
Zinc	103			479	400	94.0

SR = Sample Result

SDR = Sample Dilution Result

SPR = Sample Post Spike Result

SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample1 : 07624-001

QC Sample 1 for following samples:

07486-006; 07494-001; 07501-001; 07547-001

07557-001; 07560-001; 07619-002; 07621-001

07622-001; 07624-001

0016



E08-07622

INTEGRATED ANALYTICAL LABORATORIES, LLC.

**METALS QUALITY CONTROL****IPC**

Batch (Page) #: 309

Lab Case: 07483, 07486, 07492, 07494, 07497, 07498, 07499, 07500, 07501, 07502, 07503, 07504  
 07505, 07526, 07547, 07552, 07557, 07560, 07568, 07591, 07598, 07599, 07600, 07601  
 07619, 07620, 07621, 07622, 07623, 07624, 07625, 07686, 07695, 07850

Matrix: AqueousUnit: ppb (µg/L)

ANALYTE	BSW1		
	TRUE	FOUND	%R(1)
Arsenic	50.0	50.0	100
Cadmium	50.0	50.1	100
Calcium	5000	5090	102
Chromium	50.0	49.0	98.0
Copper	50.0	50.9	102
Iron	5000	5080	102
Lead	50.0	48.8	97.6
Magnesium	5000	5060	101
Manganese	50.0	50.3	101
Mercury	2.50	2.44	97.6
Nickel	50.0	49.7	99.4
Zinc	50.0	49.6	99.2

(1) Control Limits = 95-105%

0017

## CHAIN OF CUSTODY

No. 7622  
(Lab Use Only)**ENVIRO-SCIENCES, INC.**111 Howard Boulevard, Suite 108  
Mount Arlington, NJ 07856  
Phone: 973-398-8183  
Fax: 973-398-8037CLIENT: ST. MARY'S HOSPITAL (PBI)PROJECT NAME: R8MMDELIVERABLES: Reduced Data DeliverablesSEND REPORT TO: Bob Lawrence E-Mail: RLawrenc@Enviro-Sciences.com

Sample Identification		Sampling Location Point	Sample Date	Sampling Time			Sample Matrix	Sample Type		Analysis Required (code #)	# of Containers
Lab	Field ID				A M	P M		Comp.	Grab		
01	SMP-0708	Process Wastewater	7/2/08	9:45			Aqueous	X		19	1

**Note: PVSC Threshold Limits Required**Method of Relinquishment: Drop OffName of Laboratory: IALRelinquished  
By: (Sign): [Signature]Received  
By: (Sign): [Signature]Date/Time: 7/3/08

5°C

Relinquished To Lab  
By: (Sign): \_\_\_\_\_Received For Lab  
By: (Sign): \_\_\_\_\_

Date/Time: \_\_\_\_\_

Analysis	Code
Priority Pollutant Metals	01
Petroleum Hydrocarbons	02
Volatile Organics + 15	03
Base Neutrals + 15	04
Acid & Base / Neutrals	05
VO+15 + MTBE / TBA	06
Antimony	07
Arsenic	08
Beryllium	09

Analysis	Code
Cadmium	10
Chromium	11
Copper	12
Lead	13
Mercury	14
Nickel	15
Selenium	16
Silver	17
Thallium	18

Analysis	Code
Zinc.....	19

**Note: Report on CD NOT Required**

## PROJECT INFORMATION

Case No. **E08-07622**Project **ST. MARY'S HOSPITAL (PBI)-R8MM**

Customer	ESI, INC.		P.O. #	
Contact	Bob Lawrence		Received	7/3/2008 14:30
E-Mail	rlawrenc@enviro-sciences.com	<input checked="" type="checkbox"/> EMail EDDs	Verbal Due	7/18/2008
Phone	(973) 398-8183	Fax 1(973) 398-8037	Report Due	7/25/2008
<u>Report To</u>			<u>Bill To</u>	
111 Howard Blvd			111 Howard Blvd	
Suite 108			Suite 108	
Mount Arlington, NJ 07856			Mount Arlington, NJ 07856	
Attn: Bob Lawrence			Attn: Bob Lawrence	
<b>Report Format    Reduced</b>				
<b>Additional Info</b> <input type="checkbox"/> State Form <input type="checkbox"/> Field Sampling <input type="checkbox"/> Conditional VOA				

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Depth Top / Bottom</u>	<u>Sampling Time</u>	<u>Matrix</u>	<u>Unit</u>	<u># of Containers</u>
07622-001	SMP-0708	n/a	7/2/2008@09:45	Aqueous	mg/L	1

<u>Sample #</u>	<u>Tests</u>	<u>Status</u>	<u>QA Method</u>
001	Zinc - Zn	Run	200.8

07/03/2008 15:35 by kim - NOTE 1

IF CD APPEARS ON INVOICE, PLEASE DELETE.

## INTEGRATED ANALYTICAL LABORATORIES, LLC

## SAMPLE RECEIPT VERIFICATION

CASE NO: E 08

07622

CLIENT:

EJL

COOLER TEMPERATURE: 2° - 6°C: ☒

( See Chain of Custody)

Comments

COC: COMPLETE / INCOMPLETE  
KEY☒ = YES/NA  
☒ = NO

- ☒ Bottles Intact
- ☒ no-Missing Bottles
- ☒ no-Extra Bottles

- ☒ Sufficient Sample Volume
- ☒ no-headspace/bubbles in VO's
- ☒ Labels intact/correct
- ☒ pH Check (exclude VO's)<sup>1</sup>
- ☒ Correct bottles/preservative
- ☒ Sufficient Holding/Prep Time<sup>1</sup>

☐ Sample to be Subcontracted

<sup>1</sup> All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY:

INITIAL

RL

DATE

7/3/08

CORRECTIVE ACTION REQUIRED:

YES

☐

(SEE BELOW)

NO

☐

CLIENT NOTIFIED:

YES

☐

Date/ Time:

NO

☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY:

INITIAL

ES

DATE

7/3

REV 02/05

0020

## Laboratory Custody Chronicle

*IAL Case No.***E08-07622***Client* ESL INC.*Project* ST. MARY'S HOSPITAL (PBI)-R8MM*Received On* 7/3/2008@14:30**Department: Metals**

Zinc - Zn

07622-001 Aqueous

*Prep. Date*

7/8/08

*Analyst*

Lisa

*Analysis Date*

7/10/08

*Analyst*

Helge

*Review and Approval:**R Shadio*